Oryx

Endangered flat-headed cat recorded on the Kampar Peninsula, Sumatra

By Chela Powell, 15th September 2021

The flat-headed cat *Prionailurus planiceps* is one of the world's rarest small cat species, occurring in Borneo, Kalimantan, Sumatra and Peninsular Malaysia. The same size as a domestic cat, this wetland specialist has unique anatomical adaptations such as a slight webbing between toes, a flattened skull, small ears and large canine teeth, all presumably evolved to assist in the capture of slippery aquatic prey such as fish and amphibians. The flat-headed cat is categorized as Endangered on the IUCN Red List as a result of threats that include habitat loss and fragmentation through degradation and land conversion, contamination of prey through water pollution, and depletion of fish stock by overfishing. Little is known about the species' ecology and behaviour as it is seldom seen and there are few published records of sightings, especially in Sumatra. The lack of information on the flat-headed cat may be because of its rareness, the lack of species-specific studies, and/or that wetlands are generally under-represented in camera-trap studies across the region. In our recently published article in *Oryx*, we report the first records of this species on the Kampar Peninsula, recorded over 4 years of remote camera studies between 2015 and 2019.

Remote camera images of the elusive flat-headed cat.

The Kampar Peninsula is a coastal plain on the eastern coast of Sumatra, nestled between the Mallaca straights to the north and the Kampar river to the south. This landscape has a variety of different land uses including acacia and palm oil plantations on the peripheral edges and dense

peat-swamp forest in the centre of the peninsula. The Restorasi Ekosistem Riau programme covers 130,095 ha of this high conservation value peat-swamp forest, and it is here that these flat-headed cats have been recorded. This privately-funded programme comprises four adjacent, 60 year Ecosystem Restoration Concession licenses granted by the Government of Indonesia's Ministry of Environment and Forestry. About twice the size of Singapore, this area is considered one of the largest remaining intact peat-swamp forest in South-east Asia.

The Restorasi Ekosistem Riau programme covers an area of more than 130,000 ha of peat-swamp forests on the Kampar Peninsular, east Sumatra.

Since 2015, plant and animal surveys have been undertaken across much of the area to provide a baseline inventory of species. These surveys have revealed a fantastic array of plants and animals (823 species), including five of Sumatra's six felid species: the marbled cat *Pardofelis marmorata*, leopard cat *Prionailurus bengalensis*, flat-headed cat, Sunda clouded leopard *Neofelis diardi* and the Critically Endangered Sumatran tiger *Panthera tigris sumatrae*, as well as the Critically Endangered Sunda pangolin *Manis javanica*, more than 300 species of bird and 108 species of herpetofauna. These surveys have provided an insight into the flora and fauna communities present in this remote landscape, many of which are rare and threatened.

Some of the animals captured on remote camera as part of Restorasi Ekosistem Riau's biodiversity monitoring surveys. Sun bear *Helarctos malayanus*, bearded pig *Sus barbatus* and Sunda-clouded leopard *Neofelis diardi*.

A species distribution model built for the flat-headed cat predicted that Kampar Peninsula was one of the largest remaining areas in Sumatra for the species. This model was used to inform the IUCN Red Listing of the flat-headed cat. Our records provide the first published evidence of the species on the Kampar Peninsula, further highlighting the importance of the area as one of the remaining strongholds in Sumatra for this rare felid. During 2015–2019, over 26,650 camera-trap nights, we recorded the flat-headed cat at 11 separate locations within the Restorasi Ekosistem Riau area. All of these records were near water bodies, and most were at night.

Restoration planting of degraded peat swamp forest areas in Restorasi Ekosistem Riau.

Restoration programmes such as Restorasi Ekosistem Riau offer an opportunity for restoring

degraded landscapes while also providing and improving habitat for threatened species. Our team plans to continue to develop species-specific conservation plans for priority species such as the flat-headed cat, to strengthen and support the population through restoration planting, forest protection and continued monitoring.

All Photos: RER

The article First records of the flat-headed cat *Prionailurus planiceps* on the Kampar Peninsula, Sumatra, Indonesia is available in *Oryx—The International Journal of Conservation*.

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